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One World. One Smart Choice.™

CINE VCLX
CINE VCLX CA BATTERY

Owner's Manual

A7595-0329 Rev F

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IMPORTANT

READ AND UNDERSTAND THIS MANUAL BEFORE OPERATION

The CINE VCLX Battery can only be charged with the CINE VCLX charger.

Do not attempt to charge on non-InterActive chargers or chargers not manufactured by Anton/Bauer, Inc. Safety circuits in the battery will prevent charging on any charger, which cannot properly address the battery communication.

Precautions and handling instructions contained in this manual should be strictly adhered to for safe and reliable operation.

Contact Anton/Bauer Field Support at (203) 925-4991 or support@antonbauer.com with any questions regarding this product.

INTRODUCTION

Anton/Bauer brings the field proven technology of Logic Series® batteries into the world of film and digital cinema production with the CINE VCLX series of batteries and chargers.

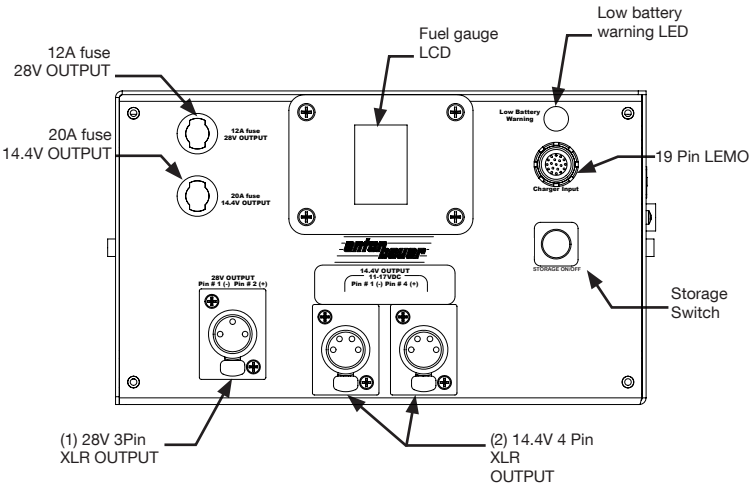
Incorporating all the features of Logic Series batteries, the CINE VCLX series provides superior run-time and service life for the power demands of today's cinema production and lighting equipment. All the safety and high power draw performance of Nickel-Metal Hydride (NiMH) cell chemistry technology is available in a power package specifically designed for the integration of 24V film and 14V video equipment. CINE VCLX series batteries are powerful enough to run for extended periods of time with many cameras predominantly used in the world of film and digital cinematography.

The high power 28V output is also capable of powering 200w HMI lights, LED panels and portable microwave units.

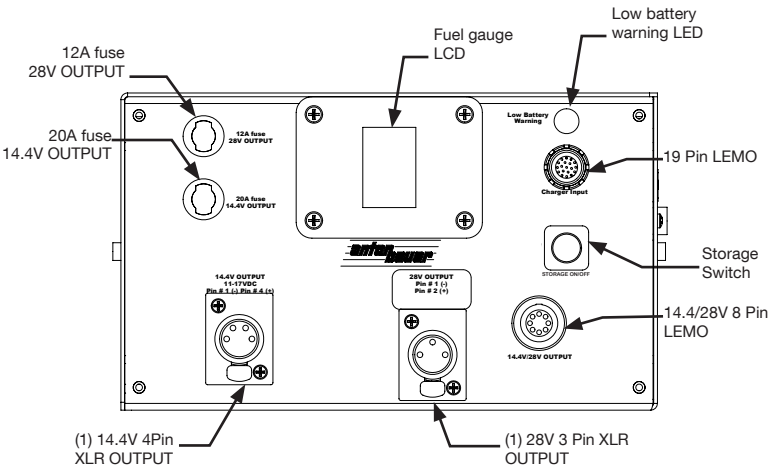
All Anton/Bauer CINE VCLX series batteries feature the RealTime® LCD that accurately displays remaining run-time and a visual LED warning indicator when 15 minutes of run-time remain.

Ni-MH

CINE VCLX



CINE VCLX CA



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FEATURES

1. **Microprocessor Fuel Computer** - Accurately monitors the energy put into and taken out of the battery. This data is processed with sophisticated programs that take into account battery age, self discharge, charge/discharge rate, cell imbalance and previously experienced charge/discharge cycles. The CINE VCLX (CA) battery constantly “learns” its precise state of charge and remaining capacity. This data is automatically transmitted to the charger.

2. **Integral RealTime®‘LCD’** - Accurately displays the percentage of remaining battery capacity at all times.

3. **Multi-Voltage Output** - The multi-voltage output, both 14.4 volt and 28 volt makes this battery unique, making it the perfect application for most film cameras.

4. **High Current Output –** Allows for 20 amp current drawn from 14.4 volt outputs and 12 amp draw from 28 volt outputs.

5. **Case design** - The high quality design of the CINE VCLX (CA) battery protects the cells from impact and normal operating use.

6. **Individual Computer Testing** - Like all professional Anton/Bauer batteries, this battery has been individually computer tested, for assurance of optimum capacity, voltage and overall quality.

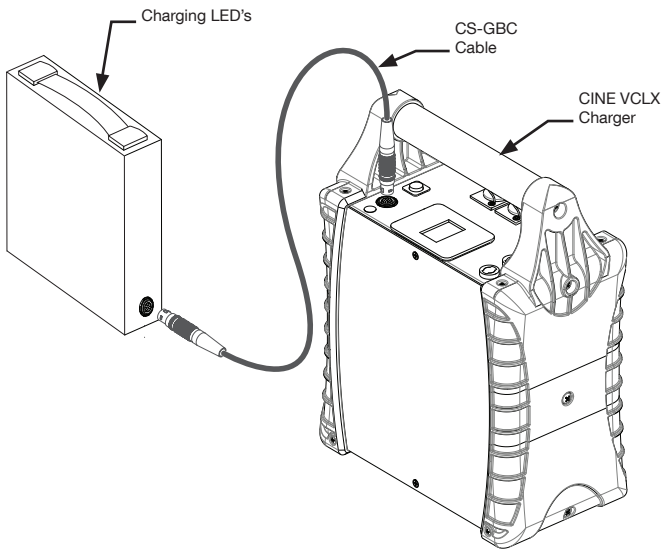
7. **Low Voltage Cut-Off** - The CINE VCLX (CA) battery has a low voltage cut-off to protect against damage to the battery. The low voltage cut-off is set to 12 volts.

8. **Storage Mode** - This function allows for the CINE VCLX to be stored for long periods in the most efficient power saving state.

CHARGING WITH THE CINE VCLX CHARGER

Charge this battery fully before using. Allow the battery to reach a steady green mode before using. Charging is automatic. The flashing red and green lights indicate the charger and battery are establishing communications. The following are the standard indications on any Anton/Bauer charger:

- Alternating red and green: Evaluating battery and/or rejuvenating low voltage battery.
- Steady red: Battery holding for temperature stabiliztion.
- Flashing red: Charging
- Steady green: Lifesaver® or equalize mode. Batteries will remain charged and ready for use indefinetly.
- Flashing green: Full battery insttalled verifying charge state.



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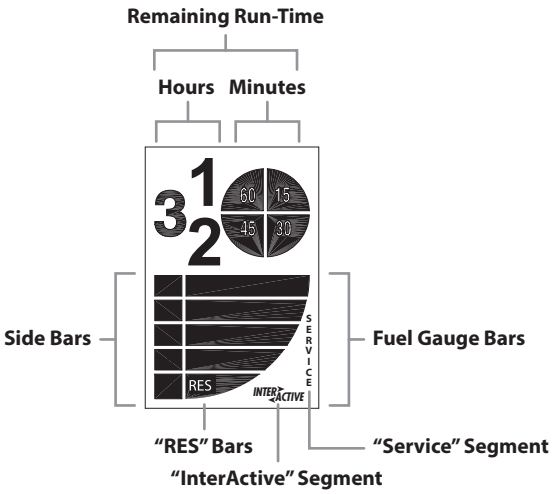
REALTIME®LCD

The CINE VCLX features a "RealTime®" LCD providing "on-the-fly" remaining run time estimates in 15 minute increments as well as *simultaneously* providing remaining capacity information using the traditional "Fuel Gauge" approach. No special adapters or set up is required. RealTime® *automatically calculates the load and displays capacity information and battery status at all times.*

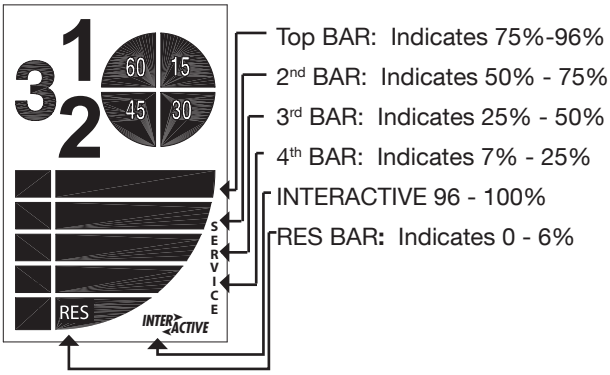
Special electronics protect the NiMh cells in the battery from damage and to ensure safe operation. These electronics work in conjunction with the battery electronics and will give the operator additional indications in the RealTime™ display of the battery's status as outlined below.



- The large numbers **1, 2 or 3** indicate remaining <u>hours</u> under current load (only one number will display at anyone time).

- The pie chart numbers **(15, 30, 45, or 60)** indicate remaining <u>minutes</u> under current load.

- The InterActive® Segment indicates a **FULLY CHARGED** battery verified by charger communication



1. **"INTERACTIVE™" SEGMENT:** When illuminated, it indicates the battery has completed its full charge routine.

2. **"RES" Bar:** Is the last "Fuel Gauge" Bar and will start to flash at 6% capacity and will continue to flash until EOD (End Of Discharge) is reached.

3. **"SERVICE" SEGMENT:** Indicates self-diagnostic functions have detected anomalies. <u>A battery with a "Service" flag should be returned to the Anton/Bauer Service Department.</u>

4. **"SIDE BAR" SEGMENTS:** Will remain ON unless a calibration charging routine is required

If the SIDE BARS (only) flash, AND other icons are lit and not flashing, this indicates the battery has requested to be fully charged and discharged in order to update its "learned capacity". This "learning" should typically occur during normal equipment operation. However, if the battery has not been fully charged and discharged for some time, this indication will appear. To remove the flashing SIDE BARS, fully charge the battery (Interactive indication) on the battery. Then discharge the battery on a camera in normal operation continuing to keep the camera "hot" until it shuts down. Then return the battery to the charger. When the battery is full remove it from the charger.

IMPORTANT NOTE: The flashing SIDE BARS indication is <u>not</u> a warning indication. The battery will operate perfectly normal while awaiting a "learning" cycle. Rather than relying on an "assumed" capacity, as with some imitation fuel gauges, the battery relies on the Digital Battery electronics to update capacity information as the the battery sees different operating conditions and ages normally. The flashing bars are merely an indication that the battery has not updated this information for some time and is requesting a confirmation of its "learned" capacity.

<u>LOW BATTERY WARNING</u>

The red LED on the top of the battery, next to the 19 Pin LEMO charging connector, will flash when the battery has approximately 15 minutes of runtime remaining. The microprocessor, internal to the battery, will calculate the load applied, and determine when there is 15 minutes or less, of runtime remaining.

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GUIDELINES FOR OPTIMUM PERFORMANCE AND MAXIMUM LIFE

1. Keep batteries cool or at room temperatures whenever possible.Sustained elevated temperatures are the primary reason for premature failure of NiMH batteries:

   a. Charging - Charge batteries at room temperature. In warm climates keep chargers in air conditioned rooms that are maintained between 65°F to 85°F for best performance.

   b. In the Field - Do not leave batteries in a hot vehicle trunk or out in direct sunlight unnecessarily.

   c. Storage - If batteries are not going to be used for several months,they should be fully discharged, sealed in a plastic bag and stored in a refrigerator.

2. As soon as you have finished using the CINE VCLX, activate the storage mode. This mode will minimize the power loss during periods of inactivity.

3. Use only an Anton/Bauer CINE VCLX Charger and keep the battery on the charger until just prior to being used.

4. Return battery to the charger as soon as possible after use, preferrably within 24 hours.

5. **Do not over-discharge batteries** - It is quite proper to discharge a battery until a low voltage warning in the camera or VTR is observed. However, a switch to a fresh battery should occur as soon as possible following such indication

   a. A CINE VCLX (CA) battery should be changed as soon as possible after a "flashing **'RES'** segment" or Red flashing LED is indicated.

   b. Never leave a battery operated device unattended while it is running.

   c. DO NOT LEAVE A BATTERY ATTACHED TO A CAMERA/CAMCORDER during transit or storage. "Keep warm"circuitry in the camera can overdischarge the battery.

6. Routine use of a battery at discharge rates greater than the battery rating can reduce overall service life.

7. Discharging the battery for diagnostic purposes should only be performed on an occasional basis (once every 6-8 weeks at most). Unnecessary discharging only detracts from overall life.

Anton/Bauer publishes a comprehensive "Video Battery Handbook" to help you further understand the care and use of batteries. This guide is available at no charge by contacting Anton/Bauer at 1-800-422-3473 or 203-929-9935 or www.antonbauer.com

SERVICE

In the unlikely event a CINE VCLX (CA) battery fails to deliver acceptable performance, it must be returned to the Anton/Bauer Customer Support Group, the only facility qualified and equipped to service the CINE VCLX (CA) batteries and calibrate the electronic components and sensors. Any attempt by the user or any other unauthorized persons to service this battery will surely result in improper calibration of the electronic components resulting in severe battery damage and/or safety hazards to the operator, in addition to voiding any/all remaining unconditional or pro-rated warranty conditions.

THEREFORE:

1. **DO NOT** attempt to service this battery under any circumstances.

2. **DO NOT** send this battery for service to anyone other than theAnton/Bauer Customer Support Group.

3. **DO NOT** re-cell this battery - At the end of its useful life contact the Anton/Bauer Customer Support Group. This battery is unable to be re-celled due to proprietary circuitry that protects the battery. Contact Anton/Bauer to inquire about "Battery Modules" which are available for your battery.

SPECIFICATIONS

OUTPUT VOLTAGE	14.4v Nominal 12-16.8v Operating 28v Regulated
CAPACITY (CELL CAPACITY)	560 WH Nominal (38 AH Rated)
FUSE	20A at 12 volts (external) 12A at 28 volts (external)
RECOMMENDED OPERATION *(MAXIMUM DISCHARGE RATE)*	100 watts (*500 watts)*
TYPICAL RUN-TIME @ 14.4V	@ 100w – 5 ½ hrs. @ 150w – 3 ¾ hrs. @ 300w – 1 ¾ hrs.
TYPICAL RUN-TIME @ 28V	@ 50w – 11 hrs. @ 100w – 5 ½ hrs. @ 250w – 2 ¼ hrs.
WEIGHT	25 lbs

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LIMITED WARRANTY

0-12 MONTHS - “Anton/Bauer will repair or replace the product at Anton/Bauer’s option - FREE OF CHARGE.”

This limited warranty for the product specified in this document is given by Anton/Bauer, Inc. (“Anton/Bauer”), 14 Progress Drive, Shelton, Connecticut 06484. If you have any questions regarding product applications, product specification, or to obtain warranty service on this or any Anton/Bauer product, contact the Anton/Bauer Customer Support Group or the company at the address above.

IMPORTANT: WARRANTY REGISTRATION CARD MUST BE MAILED WITHIN 30 DAYS OF PURCHASE TO QUALIFY FOR THIS WARRANTY. Warranty registration, including the serial numbers of Anton/Bauer chargers used with this Product, must be supplied to Anton/Bauer. Anton/Bauer will warranty the Product only against defects in material and workmanship for a period of (see above) years from the date of purchase, in accordance with the terms set forth below, and then, only if the Product is used only in conjunction with compatible Anton/Bauer chargers. If this battery is returned to Anton/Bauer for warranty service it will be required that the user provide model names and serial numbers of compatible Anton/Bauer chargers with which this product was used.

THIS PRODUCT MAY ALSO BE REGISTERED ON LINE AT www.antonbauer.com.

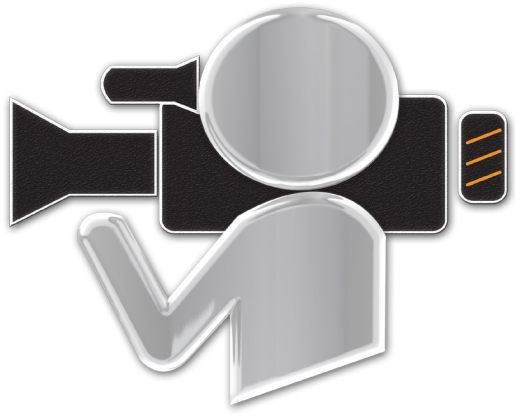
This warranty shall be effective only if Anton/Bauer receives notice of such defects in materials or workmanship during the period of the warranty. Minimum battery capacity is defined, under this warranty, as 60% of nominal specified capacity for this product at time of purchase. The liability of Anton/Bauer hereunder is expressly limited to a claim for repair or replacement of the Product or as otherwise stated herein at Anton/Bauer’s sole discretion. Notice of any claim under this warranty shall be delivered to Anton/Bauer during the period of the warranty and the Product should be returned with its packaging promptly, at purchaser’s expense, to an Anton/Bauer Customer Support Center or to the address above. Upon receipt of the Product and a record of your compliance with the conditions of this warranty, Anton/Bauer will repair or replace the Product and return it to you, or issue a credit, as applicable.

THIS WARRANTY DOES NOT APPLY TO AND IS VOID IN THE CASE OF DEFECTS OR DAMAGE RESULTING FROM ACCIDENTS, DISASTER, NEGLECT, MISUSE, IMPROPER INSTALLATION, IMPROPER OR UNAUTHORIZED SERVICE OR MAINTENANCE, UNAUTHORIZED REPLACEMENT PARTS OR ATTACHMENTS; OR DYSFUNCTION OR MALFUNCTION OF, OR CAUSED BY, ANY OTHER PRODUCT OR DEVICE. Misuse includes any use of the Product in other than its intended application, including the use of this Product with any charging device or accessory not manufactured by and/or specified by Anton/Bauer. This warranty does not cover, and Anton/Bauer assumes no responsibility for, any equipment or devices used in conjunction with the Product.

ANTON/BAUER DISCLAIMS ANY LIABILITY FOR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY WRITTEN OR IMPLIED WARRANTY OF THE PRODUCT. UNDER NO CIRCUMSTANCES WILL ANTON/BAUER BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

This Warranty is to be construed and enforced in accordance with the law of the State of Connecticut, including the provisions of the Uniform Commercial Code as adopted and from time to time amended in the State of Connecticut, and not the Convention for the International Sale of Goods. This choice of Connecticut law is exclusive of any Connecticut law that would require reliance on any law foreign to Connecticut. Should any action of law or in equity be brought by any person under this Warranty, such action shall be brought only in the United States District Court for the District of Connecticut, or in any Superior Court in Fairfield County, Connecticut, U.S.A. Some states do not allow limitations on how long a warranty lasts, so the time period limitation herein may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may have other legal rights which vary from state to state.

Use of unauthorized equipment in conjunction with Anton/Bauer products constitutes misuse under our warranties and may limit or void those warranties. Anton/Bauer does not authorize, condone, recommend, or otherwise assume any liability or responsibility resulting from the use of any battery, charger or accessory made by Anton/Bauer manufacture with any battery, charger or accessory not manufactured, produced or sold by Anton/Bauer. Anton/Bauer only authorizes the use of original Anton/Bauer product with this product. Use only original Anton/Bauer equipment with this product.



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For recycling information outside the United States and Canada, contact Anton/Bauer®.

The EPA certified RBRC® Battery Recycling Seal on the Nickel Metal Hydride (Ni-MH) battery indicates Anton/Bauer is voluntarily participating in an industry program to collect and recycle these batteries at the end of their useful life, when taken out of service in the United States or Canada. The RBRC® program provides a convenient alternative to placing used Ni-MH batteries into the trash or the municipal waste stream, which may be illegal in your area. Please call 1-800-8-BATTERY™ for information on Ni-MH battery recycling and disposal bans/restrictions in your area. Anton/Bauer's involvement in this program is part of our commitment to preserving our environment and conserving our natural resources.

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